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**16.** The receiver of claim **10**, further comprising:

- (c) timing control means coupled to the extracting means and rate estimator means for adjusting the timing of the received spread spectrum signal based on both the rate estimate and at least one of the data signal and the reference sample information. 5

**17.** A coherent spread spectrum receiver, including a sampler for digitizing a received spread spectrum signal including transmitted data, and a despreader following the sampler for despreding the received spread spectrum signal 10 into a data signal, the receiver comprising:

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- (a) an extractor coupled to the despreader operable for extracting reference sample information from the data signal;
- (b) a rate estimator coupled to the extractor, operable for estimating which slots of a first frame are occupied by the reference sample information; and
- (c) outputting means for outputting a rate estimate based on the estimating which slots of the first frame are occupied by the reference sample information.

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